

**SOURCE QUALIFICATION REQUIREMENTS**  
(PL98-525, SECTION 2319)

STOCK NR (NSN) 1620-00-264-0745  
NOUN: NLG Outer Cylinder

PART NUMBER (P/N) 7227218-10  
AIRCRAFT: T-38

**SECTION C**

**QUALIFICATION REQUIREMENTS THAT MUST BE SATISFIED TO BECOME A QUALIFIED SOURCE:**

1. *Because of the need for uninterrupted item support to military aircraft systems while keeping with the requirements of PL 98-525, the current acquisition need not and generally will not be delayed to provide an offeror an opportunity to qualify. Normal acquisition practices at OO-ALC should preclude the denial of opportunity to any interested offeror.*
2. The offeror must provide a pre-contract award qualification article, which meets the requirements of the engineering drawings, material specifications, and process specifications. However, successful completion of the qualification testing does not guarantee any contract award. If the offeror is deemed qualified and awarded the contract, a post-contract award first article exhibit may be required to verify production capability.
3. The qualification article will be subjected to form, fit, and function verification as well as required testing to assure compliance with data list and other applicable procurement criteria. The qualification article shall demonstrate full compatibility and comparability with existing parts.
4. The required materials will be procured from a qualified source and shall meet the requirements of their respective specifications. The offeror will assure that the supplier has accomplished this and shall submit certified documentation of accomplishment of the above requirements to the purchaser along with the pre-contract award qualification article.
5. The required forgings shall be procured from the qualified forging source using the original certified forging procedures and dies. Forging material and lot qualifications shall be accomplished as required in the specified forging drawing, P/N 7227218-10 and specification MIL-A-22771. The offeror shall assure that this is or has been accomplished by the forging source and will submit certified documentation of accomplishment of the above requirements to the government along with the pre-contract award qualification article.
6. The qualification article once submitted will become subject to such testing as deemed necessary by the U.S. Government to prove that the article meets all dimensional, processing and functional requirements. Such testing may result in the destruction of the article. Following completion of necessary testing and evaluation, the article no matter what its condition shall be returned to the contractor or disposed of at his discretion and direction whether it was found acceptable or not.
7. **Form verification:** The U.S. Government's Quality Verification Center (QVC) will be used to insure compliance with the dimensional requirements of the article. Material and processing compliance will also be verified as required.
8. **Fit/function verification:** Existing components and government test stands and fixtures will be utilized to verify physical interface and functional performance of articles.
9. **Testing for material and process compliance.**
  - (a) Material analysis
  - (b) Heat treat
  - (c) Grinding
  - (d) Plating
  - (e) Finish
  - (f) Grain flow
  - (g) Other

## SOURCE QUALIFICATION REQUIREMENTS

(PL98-525, SECTION 2319)

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PART NUMBER (P/N)7227218-10

NOUN: NLG Outer Cylinder

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### 10. Remarks:

- a. Organic verification capabilities exist at OO-ALC.
- b. Testing requirements outside organic capabilities will be contracted out.

11. The estimated cost of government testing and evaluation is \$15,000.

12. Maximum time for testing of the qualification article will not exceed 30 days from receipt at testing agency.

## SECTION D

### QUALIFICATION WAIVER REQUIREMENTS.

1. An offerer who has had previous experience in the manufacture and qualification of items, which can be correlated with this product, may apply to the design control authority at OO-ALC for a waiver of the above stated qualification requirements.

a. The qualification waiver criteria utilized by the design control authority to perform a qualification analysis are available upon request. The qualification waiver criteria may be used as a guide in preparing the offerer's written input to the design control authority.

b. The burden of proof for written inputs is on the offerer. The design control authority will not pursue authenticity verification of claims made by the offerer of product manufacturing experience with other Government or non-Government agencies. Unsubstantiated claims will not be considered in the waiver analysis process.

c. This waiver will be granted if and only if the design control authority (LILE) can establish the qualifications of the offerer through the evaluation of written inputs from the offerer or from previous knowledge of the offerer's capabilities or from previous experience with the offerer on similar item acquisitions. If there is any doubt about the offerer's capability, the offerer will be required to submit a pre-qualification article. There is no guarantee of qualification by similarity. LILE reserves the right to require a pre-qualification article of all offerers.

2. The current acquisition need not and will not be delayed in order to provide an offerer with an opportunity to meet the requirements for qualification waiver.

3. Maximum time for approval of qualification by similarity will not exceed 15 days.



INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

- Item A. Self-explanatory.
- Item B. Self-explanatory.
- Item C. Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as 'Provisioning', 'Configuration Management', etc.
- Item D. Enter name of system/item being acquired that data will
- Item E. Self-explanatory (to be filled in after contract award).
- Item F. Self-explanatory (to be filled in after contract award).
- Item G. Signature of preparer.
- Item H. Date CDRL was prepared.
- Item I. Signature of CDRL approval authority.
- Item J. Date CDRL was approved.
- Item 1. See DoD FAR Supplement Subpart 4.71 for proper numbering.
- Item 2. Enter title as it appears on data acquisition document cited in Item 4.
- Item 3. Enter subtitle of data item for further definition of data item (optional entry).
- Item 4. Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMSDL), or one-time DID number, that defines data content and format requirements.
- Item 5. Enter reference to tasking in contract that generates requirement for the data item (e.g. Statement of Work paragraph number).
- Item 6. Enter technical office responsible for ensuring adequacy of the data item.
- Item 7. Specify requirement for inspection/acceptance of the data item by the Government.
- Item 8. Specify requirement for approval of a draft before preparation of the final data item.
- Item 9. For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref DoDD 5230.24).
- Item 10. Specify number of times data items are to be delivered.
- Item 11. Specify as-of date of data item, when applicable.
- Item 12. Specify when first submittal is required.
- Item 13. Specify when subsequent submittals are required, when applicable.
- Item 14. Enter addresses and number of draft/final copies to be delivered to each addressee. Explain reproducible copies in Item 16.
- Item 15. Enter total number of draft/final copies to be delivered.
- Item 16. Use for additional/clarifying information for items 1 through 15. Examples are: Tailoring of documents cited in Item 4; Clarification of submittal dates in Items 12 and 13; Explanation of reproducible copies in Item 14; Desired medium for delivery of the data item.

FOR THE CONTRACTOR

- Item 17. Specify appropriate price group from one of the following groups of effort in developing estimated prices for each data item listed on the DD Form 1423.
  - a. Group I. Definition - Data which is not otherwise essential to the contractor's performance of the primary contracted effort (production, development, testing and administration) but which is required by DD Form 1423.
 

Estimated Price - Costs to be included under Group I are those applicable to preparing and assembling the data item in conformance with Government requirements, and the administration and other expenses related to reproducing and delivering such data items to the Government.
  - b. Group II. Definition - Data which is essential to the performance of the primary contracted effort but the contractor is required to perform additional work to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, or quality of the data item.
 

Estimated Price - Costs to be included under Group II are those incurred over and above the cost of the essential data item without conforming to Government requirements, and the administrative and other expenses related to reproducing and delivering such data item to the Government.
  - c. Group III. Definition - Data which the contractor must develop for his internal use in performance of the primary contracted effort and does not require any substantial change to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, and quality of the data item.
 

Estimated Price - Costs to be included under Group III are the administrative and other expenses related to reproducing and delivering such data item to the Government.
  - d. Group IV. Definition - Data which is developed by the contractor as part of his normal operating procedures and his effort in supplying these data to the Government is minimal.
 

Estimated Price - Group IV items should normally be shown on the DD Form 1423 at no cost.
- Item 18. For each data item, enter an amount equal to that portion of the total price which is estimated to be attributable to the production or development for the Government of that item of data. These estimated data prices shall be developed only from those costs which will be incurred as a direct result of the requirement to supply data, over and above those costs which would otherwise be incurred in performance of the contract if no data were required. The estimated data prices shall not include any amount for rights in data. The Government's right to use data shall be governed by the pertinent provisions of the contract.



REV:  B	<b>ENGINEERING DATA REQUIREMENTS</b> (ATTACHMENT "A")	
NOTE: MILITARY SPECIFICATIONS /STANDARDS WILL NOT BE FURNISHED IN THE BID SET.		
1. THE FOLLOWING INSTRUCTIONS ARE FURNISHED FOR THE MANUFACTURE OF  CYLINDER ASSY, NLG		
2. PART NUMBER  7227218-10	3. NATIONAL STOCK NUMBER  1620-00-264-0745LE	
4. THE FOLLOWING SPECIFICATIONS/STANDARDS, ETC., WILL BE USED IN LIEU OF THE DATA INDICATED. THE SUPERSEDED DATA WILL NOT BE FURNISHED UNLESS SO INDICATED.		
5. IDENTIFY PER MIL-STD-130 IN LIEU OF IM-8 AND MA-19.1.		
6. THREADING PER MIL-S-8879 IN LIEU OF FH-32.		
7. INSTALL BUSHINGS PER THE FOLLOWING IN LIEU OF CP-4 AND FH-19:		
<p>A. THE BUSHING INSTALLATIONS SHALL BE ACCOMPLISHED IN SUCH A MANNER AS TO AVOID DAMAGE TO THE FINISH ON THE I.D.OF THE HOUSING INTO WHICH THE BUSHING IS INSTALLED, OR THE FINISH OF THE O.D. OF THE BUSHING. FORCED INSTALLATION OF SUB-ZERO INSTALLATIONS, SUCH AS THE USE OF A PRESS OR HAMMER IS NOT PERMITTED, AND IS NOT ACCEPTABLE. A SMALL NON-METALLIC HAMMER MAY BE USED TO TAP THE BUSHING INTO ALIGNMENT WITH THE HOUSING BORE, OR TO SEAT THE BUSHING.</p> <p>B. PRIOR TO BUSHING INSTALLATION, THE PARTS AND HOUSING BORE SHALL BE CLEANED WITH A CLEANING SOLVENT TO REMOVE ALL CONTAMINATION.</p> <p>C. LIQUID NITROGEN SHALL BE USED FOR ALL SUB-ZERO INSTALLATIONS UNLESS SOME OTHER SUB-ZERO COOLANT IS SPECIFIED, AND APPROVED BY OO-ALC/LILEC ENGINEERING. THE SOAK TIME OF THE BUSHING IN THE LIQUID NITROGEN SHALL BE SUFFICIENT TO ALLOW THE BUSHING TO REACH THE SAME TEMPERATURE AS THE COOLANT.</p> <p>D. THE BUSHING SHALL BE INSTALLED INTO THE HOUSING IMMEDIATELY UPON REMOVAL FROM THE COOLANT WITH AN ABSOLUTE MINIMUM OF LOST TIME. TRIAL RUNS SHALL BE ACCOMPLISHED AS NECESSARY TO MINIMIZE INSTALLATION TIME WHICH SHOULD BE IN THE ORDER OF ABOUT SEVEN (7) SECONDS MAXIMUM.</p> <p>E. IT MAY OCCASIONALLY BE NECESSARY TO HEAT THE HOUSING INTO WHICH THE BUSHING IS TO BE INSTALLED, IN ADDITION TO SUB-ZERO COOLING OF THE BUSHING. DETAIL PARTS IN PROCESS, WILL NOT HAVE PAINT OR SEALANT OR OTHER ORGANIC MATERIAL APPLIED PRIOR TO HEATING, THE PARTS SHALL BE HEATED BY THE USE OF RADIANT HEAT TECHNIQUES, SUCH AS THERMAL BLANKETS, INFRARED LAMPS ETC.; TO THE MAXIMUM TEMPERATURE OF 250 F. TEMPERATURE MEASURING DEVICES SHALL BE USED TO MONITOR HEAT AND SHALL BE LOCATED ON AREAS OF THE PART EXPECTED TO REACH MAXIMUM TEMPERATURE. NO SCALING, OXIDATION, OR CORROSION SHALL BE PERMITTED.</p>		
PREPARED BY  JOAN HYATT	SYMBOL  LGMPM	DATE  5 Sep 01

REV: B	ENGINEERING DATA REQUIREMENTS CONTINUATION SHEET (ATTACHMENT "A")	
PART NUMBER 7227218-10	NATIONAL STOCK NUMBER 1620-00-264-0745LE	
<p>F. BUSHINGS WITHOUT FLANGES SHALL BE INSTALLED INTO HOUSING BORE WHICH HAS RECEIVED A LIGHT COAT OF SEALANT PER MIL-PRF-81733. INSTALL SHRUNKEN BUSHING AND WIPE OFF ANY EXCESS SEALANT THAT MAY HAVE EXTRUDED AROUND THE PERIPHERY OF BOTH ENDS OF THE BUSHINGS.</p> <p>G. BUSHINGS WITH FLANGES SHALL BE INSTALLED IN A SIMILAR MANNER AS PARAGRAPH (F) EXCEPT SEALANT SHALL ALSO BE APPLIED TO FACE OF LUG UNDER FLANGE. SEALANT SHALL BE APPLIED IN SUCH A MANNER AS TO ENSURE COMPLETE COVERAGE OF INSIDE FACE OF BUSHING FLANGE WHEN BUSHING IS INSTALLED. WIPE OFF ANY EXCESS SEALANT AROUND PERIPHERY OF BUSHING FLANGE. WIPE ANY EXCESS SEALANT FROM OTHER END OF BUSHING ALSO.</p> <p>H. FOR BUSHINGS WITH EXTERNAL GREASE GROOVES, THE INSIDE OF THE LUG WILL BE COATED WITH MIL-C-16173 PRIOR TO BUSHING INSTALLATION AND FACE OF LUG WILL BE COATED WITH MIL-S-81733 PER PARAGRAPH G, IF BUSHING IS FLANGED.</p> <p>8. SHOT PEEN PER SAE AMS-S-13165 IN LIEU OF MP-207.</p> <p>9. ULTRASONIC INSPECTION PER SAE AMS-STD-2154 IN LIEU OF IT-32.5.</p> <p>10. SULFURIC ANODIZE PER SAE AMS-A-8625 TYPE II, CLASS 1 IN LIEU OF FP-59 AND NFS-76.</p> <p>11. FOR DRAWING 6-41602 :</p> <p>A. IN LIEU OF FINISH SPEC. NFS-76, FINISH PER THE FOLLOWING:</p> <p>1. APPLY ONE COAT EPOXY WATERBORNE PRIMER PER MIL-PRF-85582, TYPE 1, CLASS 2. ALTERNATE PRIMER, ONE COAT EPOXY-POLYAMIDE PER MIL-PRF-23377, TYPE 1.</p> <p>2. APPLY TWO TOPCOATS OF POLYURETHANE PER MIL-PRF-85285, TYPE I COLOR # 17925 (WHITE) PER FED-STD-595.</p> <p>B. IN LIEU OF TT-L-32 AND FP-81, USE A-A-3165, COLOR # 17038 (BLACK) PER FED-STD-595.</p> <p>12. PERFORM MAGNETIC PARTICLE INSPECTION PER ASTM E 1444, IN LIEU OF IT-32.3. FLUORESCENT TYPE, FULL WAVE DIRECT CURRENT (FWDC), AND WET CONTINUOUS METHOD. THIS PART SHALL CONFORM TO GRADE A QUALITY LEVEL CLASSIFICATION AS SPECIFIED IN MIL-STD-1907. THE INSPECTOR PERFORMING THE INSPECTION WILL BE CERTIFIED TO THE LEVEL II WITH THE INSPECTION PROCEDURE DEVELOPED BY A LEVEL III AS SPECIFIED IN NAS-410.</p> <p>13. PERFORM FLUORESCENT PENETRANT INSPECTION PER ASTM E 1417, TYPE I, METHOD B OR C, LEVEL 3 OR 4 IN LIEU OF IT-32.1 THIS PART SHALL CONFORM TO GRADE A QUALITY LEVEL CLASSIFICATION AS SPECIFIED IN MIL-STD-1907. THE INSPECTOR PERFORMING THE INSPECTION WILL BE CERTIFIED TO THE LEVEL II WITH THE INSPECTION PROCEDURE DEVELOPED BY A LEVEL III AS SPECIFIED IN NAS-410.</p> <p>14. APPLICATION OF SEALING, LOCKING, AND RETAINING COMPOUNDS USE MIL-R-46082, TYPE II IN LIEU OF MA-103.</p>		
PREPARED BY JOAN HYATT	SYMBOL LGMPM	DATE 5 Sep 01

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PART NUMBER 7227218-10	NATIONAL STOCK NUMBER 1620-00-264-0745LE	
<p>15. HEAT TREAT PER SAE AMS-H-6875 IN LIEU OF HT-3.</p> <p>16. HEAT TREAT FOR BERYLLIUM COPPER PER SAE AMS-H-7199 IN LIEU OF HT-9.2</p> <p>17. HEAT TREAT PER SAE AMS-H-6088, T73 COND IN LIEU OF HT-1.</p> <p>18. CADMIUM PLATE PER SAE AMS-QQ-P-416, TYPE II, CLASS 2 IN LIEU OF FP-2.</p> <p>19. DRAWING 3-40516, P110-1 IS NOT REQUIRED.</p> <p>20. MATERIAL:</p> <p>A. MATERIAL CALL OUT ON DWG 3-40521 USE ASTM B150 IN LIEU OF QQ-C-390.</p> <p>B. MATERIAL CALL OUT ON DWG 6-41685 USE ASTM B150 IN LIEU OF QQ-B-671.</p> <p>C. MATERIAL CALL OUT ON DWG 3-40512 USE ASTM B150 IN LIEU OF QQ-C-465.</p> <p>D. MATERIAL CALL OUT ON DWG 3-40516 USE SAE AMS 6382 IN LIEU OF MIL-S-5626.</p> <p>21. FINISHES PER NFS-70 AND NFS-76 ARE NOT REQUIRED ON THE FOLLOWING ITEMS:</p> <p>A. 3-40516-7</p> <p>B. 9756-17</p> <p>C. 6-41668-3</p> <p>D. 3-40521-3</p> <p>E. 6-41685-3</p> <p>F. 3-40512-13</p> <p>22. THE REQUIRED FORGING WILL BE PROCURED FROM THE QUALIFIED FORGING SOURCE USING THE ORIGINAL CERTIFIED FORGING PROCEDURES AND DIES/TOOLING.</p> <p>A. PRIOR TO CONTRACT AWARD THE DETAIL PART BIDDER WILL PROVIDE CERTIFICATION, FROM THE FORGING SOURCE, TO THE GOVERNMENT THAT THE CERTIFIED DIES AND FORGING PROCEDURES ARE AVAILABLE AND THAT THE FORGING SOURCE HAS AN AGREEMENT WITH THE DETAIL PART BIDDER TO PROVIDE FORGINGS FOR THEIR USE IN THE EVENT THEY ARE THE SUCCESSFUL BIDDER.</p> <p>B. PRIOR TO PRODUCTION, FORGING LOT QUALIFICATION WILL BE ACCOMPLISHED AS SPECIFIED ON THE FORGING DRAWING AND SAE AMS-A-22771. THE CONTRACTOR WILL ASSURE THAT THIS IS OR HAS BEEN ACCOMPLISHED BY THE FORGING SOURCE AND WILL SUBMIT CERTIFIED DOCUMENTATION OF ACCOMPLISHMENT TO THE GOVERNMENT.</p>		
PREPARED BY JOAN HYATT	SYMBOL LGMPM	DATE 5 Sep 01



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PART NUMBER 7227218-10	NATIONAL STOCK NUMBER 1620-00-264-0745LE	
<p>23. FORGING SOURCE, CONTROL AND LOCATION OF DIES:</p> <p>A. FORGING DRAWING: NORTHROP P/N 6-41602-5F      DIE NUMBER: 3437A</p> <p>B. CONTROL OF FORGING PROCESS: NORTHROP ATTN: CHARLIE BEUZIS (310) 332-4431</p> <p>C. LOCATION OF FORGING DIES: CONTINENTAL FORGE COMPANY 512 EAST CARLIN STREET COMPTON, CA. 90222-2312 (310) 603-1014</p> <p>24. OO-ALC/LILE SYSTEM ENGINEERING RETAINS ALL RIGHTS TO REVIEW AND ACCEPT MRB'S PRIOR TO SHIPMENT OF DISCREPANT ITEM. ALL DEVIATIONS, MINOR AND MAJOR, FROM THE ENGINEERING DRAWING PACKAGE WILL BE SUBMITTED FOR MRB DISPOSITION.</p> <p>25. PRIOR TO CONTRACT AWARD, THE CONTRACTOR WILL CERTIFY TO THE GOVERNMENT IN WRITING FULL COMPLIANCE WITH MANUALS, SPECIFICATIONS, AND STANDARDS CALLED OUT AND REQUIRED FOR THE MANUFACTURE OF THIS CONTRACTED LANDING GEAR COMPONENT/ASSEMBLY. CONTRACTOR IS RESPONSIBLE TO COMPLETELY SEARCH THESE MANUALS, SPECIFICATIONS, AND STANDARDS AND FULLY UNDERSTAND THE REQUIREMENTS NECESSARY TO MANUFACTURE LANDING GEAR COMPONENTS. ANY QUESTIONS CAN BE FORWARDED TO THIS OFFICE OO-ALC/LILE.</p> <p>26. SERIAL NUMBER SHALL BE VIBROPEENED, OR STEEL STAMPED, IN 0.09" LETTERS 0.004" - 0.007" DEEP IN THE LOCATION INDICATED. IF THE DRAWING DOES NOT INDICATE A LOCATION, OO-ALC/LILE WILL PROVIDE S/N LOCATION INSTRUCTIONS. SERIALIZATION OF ITEM SHALL BE ACCOMPLISHED AS FOLLOWS: THE SERIALIZATION WILL BEGIN WITH THE CAGE OF THE CONTRACTOR NAMED ON THE CONTRACT, FOLLOWED BY A DASH AND THE TWO DIGIT YEAR OF MANUFACTURE, FOLLOWED BY A DASH AND A SEQUENTIALLY UNIQUE 3 DIGIT NUMBER. A CONTRACTOR WHO RECEIVES NUMEROUS INTERMITTENT CONTRACTS WILL START SERIALIZATION OF ITEM WITH THE NEXT NUMBER IN SEQUENCE OF THE PRIOR CONTRACT. IF A CONTRACT PRODUCES MORE THAT 999 ITEMS, THE SERIAL NUMBER SHOULD BEGIN USING 4 DIGIT SERIAL NUMBERS. THE SERIAL NUMBER SHOULD APPEAR LIKE THIS: "S/N 98747-01-001".</p>		
PREPARED BY JOAN HYATT	SYMBOL LGMPM	DATE 5 Sep 01